

SAF-RC-074

**100-D/DR Burial Grounds & Remaining
Sites – Soil In-Process
FINAL DATA PACKAGE**

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt

H4-21

KW 2/21/12
INITIAL/DATE

COMMENTS:

SDG J01417

SAF RC-074

Rad only

Chem only

Rad & Chem

Complete

Partial



Waste Site: 100-D-30 Excavation @ 35' bgs (133.5 m)

Analytical Data Package Prepared For
Washington Closure Hanford



Radiochemical Analysis By
TestAmerica

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Assigned Laboratory Code: TARL

Data Package Contains 43 Pages

Report No.: 50530

Results in this report relate only to the sample(s) analyzed.

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
J01417	RC-074	J1N4K2	J2B070467-1	MQNLR1AC	9MQNLR10	2038182
		J1N4K3	J2B070467-2	MQNLV1AC	9MQNLV10	2038182
		J1N4K4	J2B070467-3	MQNLW1AC	9MQNLW10	2038182
		J1N4K5	J2B080454-1	MQPFN1AC	9MQPFN10	2039141
		J1N4K6	J2B080454-2	MQPFQ1AC	9MQPFQ10	2039141
		J1N4K7	J2B080454-3	MQPFR1AC	9MQPFR10	2039141
		J1N4K8	J2B080454-4	MQPFV1AC	9MQPFV10	2039141
		J1N4K9	J2B080454-5	MQPFW1AC	9MQPFW10	2039141
		J1N4L0	J2B080454-5	MQPFX1AC	9MQPFX10	2039141

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

TestAmerica Laboratories, Inc.

Washington Closure Hanford
2620 Fermi Avenue
Richland, WA 99354

February 13, 2012

Attention: Joan Kessner

SAF Number	:	RC-074
Date SDG Closed	:	February 10, 2012
Number of Samples	:	Nine (9)
Sample Type	:	Soil
SDG Number	:	J01417
Data Deliverable	:	Quick Turn Metals / Summary

CASE NARRATIVE

I. Introduction

Between February 7, 2012 and February 8, 2012, nine soil samples were received at TestAmerica for analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Washington Closure Hanford (WCH) specific ID;

WCH ID#	TARL ID#	MATRIX	DATE OF RECEIPT
J1N4K2	MQNLR	SOIL	1/07/12
J1N4K3	MQNLV	SOIL	1/07/12
J1N4K4	MQNLW	SOIL	1/07/12
J1N4K5	MQPFN	SOIL	1/08/12
J1N4K6	MQPFQ	SOIL	1/08/12
J1N4K7	MQPFR	SOIL	1/08/12
J1N4K8	MQPFV	SOIL	1/08/12
J1N4K9	MQFW	SOIL	1/08/12
J1N4L0	MQPFX	SOIL	1/08/12

II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors. The requested analyses were:

ICP Metals
ICP Metals by method SW-846 6010A
Chemical Analysis

Washington Closure Hanford
February 13, 2012

Hexavalent Chromium by EPA method 7196A

IV. Quality Control

SDG J01417 includes a minimum of one Laboratory Control Samples (LCS) and one method (reagent) blank. A duplicate sample, matrix spike sample and a matrix spike duplicate sample will be analyzed per 20 samples or per month, whichever is more frequent. Any exceptions have been noted in the "Comments" section.

Blanks and LCS are reported in mg/L units, other QC and sample results are reported in the same units.

V. Comments

ICP Metals

ICP Metals by method SW-846 6010A

Two batches were analyzed in February for the samples with the standard metal request list.

Batch 2038172:

The LCS, batch blank, samples, sample duplicate, MS, MSD, ICB, ICV, CCB and CCV results are within contractual limits.

Batch 2039144:

The LCS, batch blank, samples, sample duplicate, MS, MSD, ICB, ICV, CCB and CCV results are within contractual limits.

Chemical Analysis

Hexavalent Chromium by EPA method 7196A

Two batches were analyzed in February.

Batch 2038182:

The matrix spike recovered at 130%. The post digestive matrix spike recovered at 95% and the insoluble matrix spike recovered at 99%. This implies a reducing capacity in the sample, but not enough to exhaust the more copious insoluble matrix spike. Except as noted; the LCS, batch blank, samples, sample duplicate (J1N4K2) and sample matrix spike (J1N4K2) results are within contractual requirements.

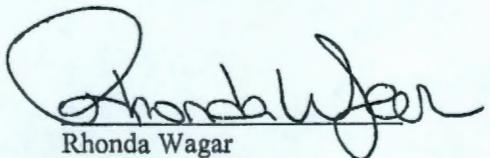
Batch 2039141:

The LCS, batch blank, samples, sample duplicate (J1N4K5) and sample matrix spike (J1N4K5) results are within contractual requirements

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the following signature.

Washington Closure Hanford
February 13, 2012

Reviewed and approved:



Rhonda Wagar
Project Manager

Drinking Water Method Cross References

DRINKING WATER ASTM METHOD CROSS REFERENCES		
Referenced Method	Isotope(s)	TestAmerica Richland's SOP No.
EPA 901.1	Cs-134, I-131	RL-GAM-001
EPA 900.0	Alpha & Beta	RL-GPC-001
EPA 00-02	Gross Alpha (Coprecipitation)	RL-GPC-002
EPA 903.0	Total Alpha Radium (Ra-226)	RL-RA-002
EPA 903.1	Ra-226	RL-RA-001
EPA 904.0	Ra-228	RL-RA-001
EPA 905.0	Sr-89/90	RL-GPC-003
ASTM D5174	Uranium	RL-KPA-003
EPA 906.0	Tritium	RL-LSC-005

Results in this report relate only to the sample(s) analyzed.

Uncertainty Estimation

TestAmerica Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, $R = \text{constants} * f(x,y,z,...)$. The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/\sqrt{n}), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or TestAmerica.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) <i>u_c- Combined Uncertainty.</i>	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, <i>u_c</i> the <i>combined uncertainty</i> . The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or TestAmerica "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. $Lc = (1.645 * \sqrt{2 * (BkgndCnt/BkgndCntMin) / SCntMin}) * (\text{ConvFct} / (\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$. For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. $MDC = (4.65 * \sqrt{(BkgndCnt/BkgndCntMin) / SCntMin}) + 2.71 / SCntMin) * (\text{ConvFct} / (\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$. For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the Work Order Number.
RER	The equation Replicate Error Ratio = $(S-D)/[\sqrt{(TPUs^2 + TPUs^2)}]$ as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUs is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

Sample Results Summary

Date: 13-Feb-12

TestAmerica TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 50530

SDG No: J01417

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
2038182 7196_CR6									
J1N4K2									
	MQNLR1AC	HEXCHROME	1.13E+02 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	MQNLR1CG	HEXCHROME	1.29E+02 +- 0.0E+00		mg/kg	N/A	1.55E-01		13.1
J1N4K3									
	MQNLV1AC	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
J1N4K4									
	MQNLW1AC	HEXCHROME	2.00E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
2039141 7196_CR6									
J1N4K5									
	MQPFN1AC	HEXCHROME	9.27E+00 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	MQPFN1AM	HEXCHROME	1.06E+01 +- 0.0E+00		mg/kg	N/A	1.55E-01	3.50E-01	13.6
J1N4K6									
	MQPFQ1AC	HEXCHROME	8.78E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
J1N4K7									
	MQPFR1AC	HEXCHROME	3.94E+00 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
J1N4K8									
	MQPFV1AC	HEXCHROME	6.38E+00 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
J1N4K9									
	MQPFW1AC	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
J1N4L0									
	MQPFX1AC	HEXCHROME	2.50E+00 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
No. of Results: 11									

TestAmerica

RPD - Relative Percent Difference.

rptSTLRchSaSum

mary2 V5.2.18.2

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

A2002

QC Results Summary
TestAmerica TARL
 Ordered by Method, Batch No, QC Type.,

Date: 13-Feb-12

Report No. : 50530

SDG No.: J01417

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
7196_CR6								
2038182	MATRIX SPIKE, J1N4K2 MQNLR1CE HEXCHROME	1.35E+01 +- 0.0E+00		mg/kg	N/A	130%	0.3	1.55E-01
2038182	LCS, MQNN91AC HEXCHROME	1.94E+01 +- 0.0E+00		mg/kg	N/A	97%	0.0	1.55E-01
2038182	BLANK QC, MQNN91AA HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A			1.55E-01
7196_CR6								
2039141	MATRIX SPIKE, J1N4K5 MQPFN1AL HEXCHROME	1.02E+01 +- 0.0E+00		mg/kg	N/A	98%	0.0	1.55E-01
2039141	LCS, MQPFW1AC HEXCHROME	1.93E+01 +- 0.0E+00		mg/kg	N/A	96%	0.0	1.55E-01
2039141	BLANK QC, MQ[FW1AA HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A			1.55E-01
No. of Results: 6								

TestAmerica Bias - (Result/Expected)-1 as defined by ANSI N13.30.
 rptSTLRchQcSum U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or
 mary V5.2.18.2 not identified by gamma scan software.
 A2002

FORM I
SAMPLE RESULTS

Date: 13-Feb-12

Lab Name:	TestAmerica	SDG:	J01417	Collection Date:	2/7/2012 2:05:00 PM
Lot-Sample No.:	J2B070467-1	Report No. :	50530	Received Date:	2/7/2012 4:40:00 PM
Client Sample ID:	J1N4K2	COC No. :	RC-074-365	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 2038182	7196_CR6				Work Order: MQNLR1AC		Report DB ID: 9MQNLR10					
HEXCHROME	1.13E+02			0.0E+00	1.55E-01	mg/kg	N/A	(728.)	2/7/12 06:30 p	2.4988	g	
							1.55E-01	N/A				

No. of Results: 1 Comments:

FORM I
SAMPLE RESULTS

Date: 13-Feb-12

Lab Name:	TestAmerica	SDG:	J01417	Collection Date:	2/7/2012 2:07:00 PM
Lot-Sample No.:	J2B070467-2	Report No. :	50530	Received Date:	2/7/2012 4:40:00 PM
Client Sample ID:	J1N4K3	COC No. :	RC-074-365	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 2038182 HEXCHROME	7196_CR6 1.55E-01 U			Work Order: MQNLV1AC 0.0E+00	Report DB ID: 9MQNLV10 1.55E-01 mg/kg		N/A 1.55E-01	(1.) N/A	2/7/12 06:30 p		2.5009 g	

No. of Results: 1 Comments:

FORM I
SAMPLE RESULTS

Date: 13-Feb-12

Lab Name: TestAmerica

SDG: J01417

Collection Date: 2/7/2012 2:10:00 PM

Lot-Sample No.: J2B070467-3

Report No. : 50530

Received Date: 2/7/2012 4:40:00 PM

Client Sample ID: J1N4K4

COC No. : RC-074-365

Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 2038182 HEXCHROME	7196_CR6 2.00E-01			Work Order: MQNLW1AC 0.0E+00		Report DB ID: 9MQNLW10 1.55E-01 mg/kg		N/A 1.55E-01	(1.3) N/A	2/7/12 06:30 p		2.5053 g

No. of Results: 1 Comments:

FORM I

Date: 13-Feb-12

SAMPLE RESULTS

Lab Name: TestAmerica

SDG: J01417

Collection Date: 2/8/2012 8:28:00 AM

Lot-Sample No.: J2B080454-1

Report No.: 50530

Received Date: 2/8/2012 4:35:00 PM

Client Sample ID: J1N4K5

COC No.: RC-074-366

Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 2039141	7196_CR6				Work Order: MQPFN1AC		Report DB ID: 9MQPFN10					
HEXCHROME	9.27E+00			0.0E+00	1.55E-01	mg/kg	N/A	(59.9)	2/8/12 06:00 p	2.5081	g	

No. of Results: 1 Comments:

FORM I
SAMPLE RESULTS

Date: 13-Feb-12

Lab Name: TestAmerica
Lot-Sample No.: J2B080454-2
Client Sample ID: J1N4K6

SDG: J01417
Report No. : 50530
COC No. : RC-074-366

Collection Date: 2/8/2012 8:29:00 AM
Received Date: 2/8/2012 4:35:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 2039141	7196_CR6				Work Order: MQPFQ1AC		Report DB ID: 9MQPFQ10					
HEXCHROME	8.78E-01			0.0E+00	1.55E-01	mg/kg	N/A	(5.7)	2/8/12 06:00 p	2.5113	g	

No. of Results: 1 Comments:

FORM I

Date: 13-Feb-12

SAMPLE RESULTS

Lab Name: TestAmerica

SDG: J01417

Collection Date: 2/8/2012 8:30:00 AM

Lot-Sample No.: J2B080454-3

Report No. : 50530

Received Date: 2/8/2012 4:35:00 PM

Client Sample ID: J1N4K7

COC No. : RC-074-366

Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 2039141	7196_CR6				Work Order: MQPFR1AC		Report DB ID: 9MQPFR10					
HEXCHROME	3.94E+00			0.0E+00	1.55E-01	mg/kg	N/A	(25.4)	2/8/12 06:00 p	2.5127	g	

No. of Results: 1 Comments:

FORM I

Date: 13-Feb-12

SAMPLE RESULTS

Lab Name: TestAmerica

SDG: J01417

Collection Date: 2/8/2012 9:53:00 AM

Lot-Sample No.: J2B080454-4

Report No. : 50530

Received Date: 2/8/2012 4:35:00 PM

Client Sample ID: J1N4K8

COC No. : RC-074-367

Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 2039141	7196_CR6				Work Order: MQPFV1AC		Report DB ID: 9MQPFV10					
HEXCHROME	6.38E+00			0.0E+00	1.55E-01	mg/kg	N/A	(41.2)	2/8/12 06:00 p	2.5046	9	

No. of Results: 1 Comments:

FORM I

Date: 13-Feb-12

SAMPLE RESULTS

Lab Name: TestAmerica

SDG: J01417

Collection Date: 2/8/2012 9:54:00 AM

Lot-Sample No.: J2B080454-5

Report No. : 50530

Received Date: 2/8/2012 4:35:00 PM

Client Sample ID: J1N4K9

COC No. : RC-074-367

Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 2039141	7196_CR6				Work Order: MQPFW1AC		Report DB ID: 9MQPFW10					
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	(1.)	2/8/12 06:00 p	2.4993		g

No. of Results: 1 Comments:

FORM I

Date: 13-Feb-12

SAMPLE RESULTS

Lab Name: TestAmerica

SDG: J01417

Collection Date: 2/8/2012 9:55:00 AM

Lot-Sample No.: J2B080454-5

Report No. : 50530

Received Date: 2/8/2012 4:35:00 PM

Client Sample ID: J1N4L0

COC No. : RC-074-367

Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 2039141 HEXCHROME	7196_CR6 2.50E+00			Work Order: 0.0E+00	MQPFX1AC 1.55E-01 mg/kg		Report DB ID: N/A	9MQPFX10 (16.1) 1.55E-01 N/A	2/8/12 06:00 p		2.5021 g	

No. of Results: 1 Comments:

FORM II

Date: 13-Feb-12

DUPLICATE RESULTS

Lab Name:	TestAmerica	SDG:	J01417	Collection Date:	2/7/2012 2:05:00 PM
Lot-Sample No.:	J2B070467-1	Report No. :	50530	Received Date:	2/7/2012 4:40:00 PM
Client Sample ID: J1N4K2		COC No. :	RC-074-365	Matrix:	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 2038182	7196_CR6				Work Order: MQNLR1CG			Report DB ID: MQNLR1ER		Orig Sa DB ID: 9MQNLR10		
HEXCHROME	1.29E+02			0.0E+00	1.55E-01	mg/kg	N/A	(830.5)	2/7/12 06:30 p		2.4996	
	1.13E+02		RPD 13.1					N/A				g

No. of Results: 1 Comments:

FORM II

Date: 13-Feb-12

DUPLICATE RESULTS

Lab Name: TestAmerica

SDG: J01417

Collection Date: 2/8/2012 8:28:00 AM

Lot-Sample No.: J2B080454-1

Report No. : 50530

Received Date: 2/8/2012 4:35:00 PM

Client Sample ID: J1N4K5

COC No. : RC-074-366

Matrix: SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 2039141	7196_CR6				Work Order: MQPFN1AM			Report DB ID: MQPFN1ER		Orig Sa DB ID: 9MQPFN10		
HEXCHROME	1.06E+01			0.0E+00	1.55E-01	mg/kg	N/A	(68.7)	2/8/12 06:00 p		2.5032	
	9.27E+00		RPD 13.6			3.50E-01		N/A				g

No. of Results: 1 Comments:

FORM II
BLANK RESULTS

Date: 13-Feb-12

Lab Name: TestAmerica

SDG: J01417

Matrix: SOIL

Report No.: 50530

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Lc	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 2038182	7196_CR6				Work Order: MQNN91AA			Report DB ID: MQNN91AB				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	(1.)	2/7/12 06:30 p	2.5		
						1.55E-01		N/A		g		
Batch: 2039141	7196_CR6				Work Order: MQFW1AA			Report DB ID: MQPFW1AB				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	(1.)	2/8/12 06:00 p	2.5		
							N/A			g		

No. of Results: 2 Comments:

FORM II
LCS RESULTS

Date: 13-Feb-12

Lab Name: TestAmerica

SDG: J01417

Matrix: SOIL

Report No.: 50530

Parameter	Result	Qual	Count	Total Uncert(2 s)	MDL	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 2038182	7196_CR6					Work Order: MQNN91AC							
HEXCHROME	1.94E+01			0.0E+00	1.55E-01	mg/kg	N/A	2.00E+01		97%	2/7/12 06:30 p	2.5	
							Rec Limits:	80	120	0.0			g
Batch: 2039141	7196_CR6					Work Order: MQPFW1AC							
HEXCHROME	1.93E+01			0.0E+00	1.55E-01	mg/kg	N/A	2.00E+01		96%	2/8/12 06:00 p	2.5	
							Rec Limits:	85	115	0.0			g

No. of Results: 2 Comments:

FORM II
MATRIX SPIKE RESULTS

Date: 13-Feb-12

Lab Name: TestAmerica

SDG: J01417

Lot-Sample No.: J2B070467-1, J1N4K2

Report No.: 50530

Matrix: SOIL

Parameter	SpikeResult, Orig Rst	Count Qual	Total Error (2 s)	Total Uncert(2 s)	Rpt Unit, MDC MDA	CRDL	Yield	Rec- covery	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 2038182	Work Order: MQNLR1CE				Report DB ID: MQNLR1CW		Orig Sa DB ID: 9MQNLR10					
HEXCHROME	1.35E+01			0.0E+00	1.55E-01	mg/kg	N/A	129.86%	1.04E+01	2/7/12 06:30 p	2.498	7196_CR6
	1.13E+02										g	

Number of Results: 1

Comments:

FORM II
MATRIX SPIKE RESULTS

Date: 13-Feb-12

Lab Name: TestAmerica
 Lot-Sample No.: J2B080454-1, J1N4K5

SDG: J01417
 Report No.: 50530

Matrix: SOIL

Parameter	SpikeResult, Orig Rst	Count Qual	Total Error (2 s)	Total Uncert(2 s)	Rpt Unit, MDC MDA	CRDL	Yield	Rec- covery	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 2039141	Work Order: MQPFN1AL			Report DB ID: MQPFN1CW			Orig Sa DB ID: 9MQPFN10					
HEXCHROME	1.02E+01		9.27E+00	0.0E+00	1.55E-01	mg/kg	N/A	97.72%	1.04E+01	2/8/12 06:00 p	2.5114	7196_CR6 g

Number of Results: 1

Comments:

SDG: J01417

SAF: RC-074

BATCH: 2038172

MATRIX: SOIL

ANALYSIS DATE: 2/7/12

Client_id	Matrix	Result_t	Cas_nbr	Parameter	Result	Qualifier	Units	Reporting_Limits_Under	Reporting_Limits_Upper	Uncertainty_1s	Analyzed	Decision_Level	LCSRec	Added/Analysis_date	time	Batch_nbr	Test_Met	Lab_sample_id
J1N4K2	SOIL BS	7440-22-4	Ag	-4.24E-02 U	UG/G	3.63E+00	3.63E+00	1.50E-01	0.2481 G	1.26E-01				2/7/2012 20:03	2038172 46DQ	MQNLR1AA		
J1N4K2	SOIL BS	7440-38-2	As	1.87E+00 U	UG/G	3.63E+00	3.63E+00	6.10E-01	0.2481 G	5.05E-01				2/7/2012 20:03	2038172 46DQ	MQNLR1AA		
J1N4K2	SOIL BS	7440-39-3	Ba	6.20E+01	UG/G	2.82E-01	2.82E-01	1.40E+00	0.2481 G	1.13E+00				2/7/2012 20:03	2038172 46DQ	MQNLR1AA		
J1N4K2	SOIL BS	7440-41-7	Beryllium	1.77E-01	UG/G	9.07E-02	9.07E-02	9.30E-03	0.2481 G	7.65E-03				2/7/2012 20:03	2038172 46DQ	MQNLR1AA		
J1N4K2	SOIL BS	7440-43-9	Cadmium	2.04E-01 U	UG/G	1.05E+00	1.05E+00	5.70E-02	0.2481 G	4.68E-02				2/7/2012 20:03	2038172 46DQ	MQNLR1AA		
J1N4K2	SOIL BS	7440-47-3	Chromium	1.24E+02	UG/G	4.03E+00	4.03E+00	3.00E+00	0.2481 G	2.49E+00				2/7/2012 20:03	2038172 46DQ	MQNLR1AA		
J1N4K2	SOIL BS	7439-92-1	Lead	1.84E+00 U	UG/G	1.85E+00	1.85E+00	6.70E-01	0.2481 G	5.50E-01				2/7/2012 20:03	2038172 46DQ	MQNLR1AA		
J1N4K2	SOIL BS	7782-49-2	Se	1.32E+00 U	UG/G	3.43E+00	3.43E+00	7.70E-01	0.2481 G	6.36E-01				2/7/2012 20:03	2038172 46DQ	MQNLR1AA		
J1N4K3	SOIL BS	7440-22-4	Ag	-1.74E-01 U	UG/G	3.63E+00	3.63E+00	1.20E-01	0.248 G	1.01E-01				2/7/2012 20:20	2038172 46DQ	MQNVL1AA		
J1N4K3	SOIL BS	7440-38-2	As	8.62E-01 U	UG/G	3.63E+00	3.63E+00	5.50E-01	0.248 G	4.56E-01				2/7/2012 20:20	2038172 46DQ	MQNVL1AA		
J1N4K3	SOIL BS	7440-39-3	Ba	5.52E+01	UG/G	2.82E-01	2.82E-01	3.50E-01	0.248 G	2.88E-01				2/7/2012 20:20	2038172 46DQ	MQNVL1AA		
J1N4K3	SOIL BS	7440-41-7	Beryllium	1.77E-01	UG/G	9.07E-02	9.07E-02	2.50E-02	0.248 G	2.08E-02				2/7/2012 20:20	2038172 46DQ	MQNVL1AA		
J1N4K3	SOIL BS	7440-43-9	Cadmium	1.38E-01 U	UG/G	1.05E+00	1.05E+00	5.50E-02	0.248 G	4.55E-02				2/7/2012 20:20	2038172 46DQ	MQNVL1AA		
J1N4K3	SOIL BS	7440-47-3	Chromium	3.19E+00 U	UG/G	4.03E+00	4.03E+00	1.10E-01	0.248 G	8.64E-02				2/7/2012 20:20	2038172 46DQ	MQNVL1AA		
J1N4K3	SOIL BS	7439-92-1	Lead	2.50E+00	UG/G	1.85E+00	1.85E+00	1.20E-01	0.248 G	1.03E-01				2/7/2012 20:20	2038172 46DQ	MQNVL1AA		
J1N4K3	SOIL BS	7782-49-2	Se	1.18E+00 U	UG/G	3.43E+00	3.43E+00	9.00E-01	0.248 G	7.42E-01				2/7/2012 20:20	2038172 46DQ	MQNVL1AA		
J1N4K4	SOIL BS	7440-22-4	Ag	-1.08E-01 U	UG/G	3.60E+00	3.60E+00	3.00E-01	0.2497 G	2.45E-01				2/7/2012 20:25	2038172 46DQ	MQNWL1AA		
J1N4K4	SOIL BS	7440-38-2	As	8.74E-01 U	UG/G	3.60E+00	3.60E+00	4.80E-01	0.2497 G	3.93E-01				2/7/2012 20:25	2038172 46DQ	MQNWL1AA		
J1N4K4	SOIL BS	7440-39-3	Ba	7.45E+01	UG/G	2.80E-01	2.80E-01	4.00E+00	0.2497 G	3.27E+00				2/7/2012 20:25	2038172 46DQ	MQNWL1AA		
J1N4K4	SOIL BS	7440-41-7	Beryllium	1.77E-01	UG/G	9.01E-02	9.01E-02	1.80E-02	0.2497 G	1.51E-02				2/7/2012 20:25	2038172 46DQ	MQNWL1AA		
J1N4K4	SOIL BS	7440-43-9	Cadmium	1.76E-01 U	UG/G	1.04E+00	1.04E+00	5.10E-02	0.2497 G	4.23E-02				2/7/2012 20:25	2038172 46DQ	MQNWL1AA		
J1N4K4	SOIL BS	7440-47-3	Chromium	5.68E+00	UG/G	4.00E+00	4.00E+00	2.70E-01	0.2497 G	2.21E-01				2/7/2012 20:25	2038172 46DQ	MQNWL1AA		
J1N4K4	SOIL BS	7439-92-1	Lead	1.75E+00 U	UG/G	1.84E+00	1.84E+00	4.40E-01	0.2497 G	3.63E-01				2/7/2012 20:25	2038172 46DQ	MQNWL1AA		
J1N4K4	SOIL BS	7782-49-2	Se	7.31E-01 U	UG/G	3.40E+00	3.40E+00	9.50E-01	0.2497 G	7.84E-01				2/7/2012 20:25	2038172 46DQ	MQNWL1AA		
J1N4K2 DUP	SOIL DUP	7440-22-4	Ag	-6.97E-02 U	UG/G	3.60E+00	3.60E+00	2.50E-01	0.2503 G	2.08E-01				2/7/2012 20:16	2038172 46DQ	MQNLR1AO		
J1N4K2 DUP	SOIL DUP	7440-38-2	As	1.61E+00 U	UG/G	3.60E+00	3.60E+00	1.10E+00	0.2503 G	9.38E-01				2/7/2012 20:16	2038172 46DQ	MQNLR1AO		
J1N4K2 DUP	SOIL DUP	7440-39-3	Ba	6.24E+01	UG/G	2.80E-01	2.80E-01	4.00E-01	0.2503 G	3.31E-01				2/7/2012 20:16	2038172 46DQ	MQNLR1AO		
J1N4K2 DUP	SOIL DUP	7440-41-7	Beryllium	1.67E-01	UG/G	8.99E-02	8.99E-02	1.60E-02	0.2503 G	1.35E-02				2/7/2012 20:16	2038172 46DQ	MQNLR1AO		
J1N4K2 DUP	SOIL DUP	7440-43-9	Cadmium	1.39E-01 U	UG/G	1.04E+00	1.04E+00	1.40E-02	0.2503 G	1.18E-02				2/7/2012 20:16	2038172 46DQ	MQNLR1AO		
J1N4K2 DUP	SOIL DUP	7440-47-3	Chromium	1.23E+02	UG/G	4.00E+00	4.00E+00	1.20E+00	0.2503 G	9.97E-01				2/7/2012 20:16	2038172 46DQ	MQNLR1AO		
J1N4K2 DUP	SOIL DUP	7439-92-1	Lead	1.91E+00	UG/G	1.84E+00	1.84E+00	3.00E-01	0.2503 G	2.46E-01				2/7/2012 20:16	2038172 46DQ	MQNLR1AO		
J1N4K2 DUP	SOIL DUP	7782-49-2	Se	1.03E+00 U	UG/G	3.40E+00	3.40E+00	3.90E-01	0.2503 G	3.19E-01				2/7/2012 20:16	2038172 46DQ	MQNLR1AO		
J1N4K2	SOIL MS	7440-22-4	Ag	1.82E+02	% RECC	3.69E+00	3.69E+00	1.00E+00	0.2438 L	8.53E-01	0.89	205.1		2/7/2012 20:07	2038172 46DQ	MQNLR1AO		
J1N4K2	SOIL MS	7440-38-2	As	1.88E+02	% RECC	3.69E+00	3.69E+00	3.40E+00	0.2438 L	2.80E+00	0.92	205.1		2/7/2012 20:07	2038172 46DQ	MQNLR1AO		
J1N4K2	SOIL MS	7440-39-3	Ba	2.10E+02	% RECC	2.87E-01	2.87E-01	3.00E+00	0.2438 L	2.50E+00	1.02	205.1		2/7/2012 20:07	2038172 46DQ	MQNLR1AO		
J1N4K2	SOIL MS	7440-41-7	Beryllium	1.90E+02	% RECC	9.23E-02	9.23E-02	1.50E+00	0.2438 L	1.21E+00	0.93	205.1		2/7/2012 20:07	2038172 46DQ	MQNLR1AO		
J1N4K2	SOIL MS	7440-43-9	Cadmium	1.80E+02	% RECC	1.07E+00	1.07E+00	2.20E+00	0.2438 L	1.82E+00	0.88	205.1		2/7/2012 20:07	2038172 46DQ	MQNLR1AO		
J1N4K2	SOIL MS	7440-47-3	Chromium	2.05E+02	% RECC	4.10E+00	4.10E+00	1.30E+00	0.2438 L	1.10E+00	1	205.1		2/7/2012 20:07	2038172 46DQ	MQNLR1AO		
J1N4K2	SOIL MS	7439-92-1	Lead	1.84E+02	% RECC	1.89E+00	1.89E+00	1.50E+00	0.2438 L	1.21E+00	0.9	205.1		2/7/2012 20:07	2038172 46DQ	MQNLR1AO		
J1N4K2	SOIL MS	7782-49-2	Se	1.69E+02	% RECC	3.49E+00	3.49E+00	1.70E+00	0.2438 L	1.37E+00	0.83	205.1		2/7/2012 20:07	2038172 46DQ	MQNLR1AO		
J1N4K2	SOIL MSD	7440-22-4	Ag	1.81E+02	% RECC	3.59E+00	3.59E+00	2.00E+00	0.2509 L	1.68E+00	0.91	199.3		2/7/2012 20:12	2038172 46DQ	MQNLR1AO		
J1N4K2	SOIL MSD	7440-38-2	As	1.84E+02	% RECC	3.59E+00	3.59E+00	2.60E+00	0.2509 L	2.13E+00	0.92	199.3		2/7/2012 20:12	2038172 46DQ	MQNLR1AO		
J1N4K2	SOIL MSD	7440-39-3	Ba	1.95E+02	% RECC	2.79E-01	2.79E-01	4.40E+00	0.2509 L	3.59E+00	0.98	199.3		2/7/2012 20:12	2038172 46DQ	MQNLR1AO		
J1N4K2	SOIL MSD	7440-41-7	Beryllium	1.85E+02	% RECC	8.97E-02	8.97E-02	2.60E+00	0.2509 L	2.10E+00	0.93	199.3		2/7/2012 20:12	2038172 46DQ	MQNLR1AO		
J1N4K2	SOIL MSD	7440-43-9	Cadmium	1.78E+02	% RECC	1.04E+00	1.04E+00	1.20E+00	0.2509 L	9.67E-01	0.89	199.3		2/7/2012 20:12	2038172 46DQ	MQNLR1AO		
J1N4K2	SOIL MSD	7440-47-3	Chromium	2.21E+02	% RECC	3.99E+00	3.99E+00	4.50E+00	0.2509 L	3.70E+00	1.11	199.3		2/7/2012 20:12	2038172 46DQ	MQNLR1AO		
J1N4K2	SOIL MSD	7439-92-1	Lead	1.74E+02	% RECC	1.83E+00	1.83E+00	2.60E+00	0.2509 L	2.16E+00	0.87	199.3		2/7/2012 20:12	2038172 46DQ	MQNLR1AO		
J1N4K2	SOIL MSD	7782-49-2	Se	1.68E+02	% RECC	3.39E+00	3.39E+00	4.00E+00	0.2509 L	3.30E+00	0.84	199.3		2/7/2012 20:12	2038172 46DQ	MQNMC1AA		
INTRA-LAB BLANK	SOIL BLK	7440-22-4	Ag	1.54E-04 U	MGL	1.80E-02	1.80E-02	2.60E-04	0.2437 L	2.12E-04				2/7/2012 20:46	2038172 46DQ	MQNMC1AA		
INTRA-LAB BLANK	SOIL BLK	7440-38-2	As	-6.51E-04 U	MGL	1.80E-02	1.80E-02	1.20E-03	0.2437 L	9.49E-04				2/7/2012 20:46	2038172 46DQ	MQNMC1AA		
INTRA-LAB BLANK	SOIL BLK	7440-39-3	Ba	5.34E-05 U	MGL	1.40E-03	1.40E-03	2.10E-05	0.2437 L	1.75E-05				2/7/2012 20:46	2038172 46DQ	MQNMC1AA		
INTRA-LAB BLANK	SOIL BLK	7440-41-7	Beryllium	2.56E-05 U	MGL	4.50E-04	4.50E-04	8.10E-05	0.2437 L	6.69E-05				2/7/2012 20:46	2038172 46DQ	MQNMC1AA		
INTRA-LAB BLANK	SOIL BLK	7440-43-9	Cadmium	2.81E-04 U	MGL	5.20E-03	5.20E-03	3.90E-04	0.2437 L	3.21E-04				2/7/2012 20:46	2038172 46DQ	MQNMC1AA		
INTRA-LAB BLANK	SOIL BLK	7440-47-3	Chromium	6.10E-05 U	MGL	2.00E-02	2.00E-02	3.30E-04	0.2437 L	2.68E-04				2/7/2012 20:46	2038172 46DQ	MQNMC1AA		
INTRA-LAB BLANK	SOIL BLK	7439-92-1	Lead	1.58E-03 U	MGL	9.20E-03	9.20E-03	2.20E-03	0.2437 L	1.81E-03				2/7/2012 20:46	2038172 46DQ	MQNMC1AA		
INTRA-LAB BLANK	SOIL BLK	7782-49-2	Se	2.69E-03 U	MGL	1.70E-02	1.70E-02	3.70E-03	0.2437 L	3.03E-03				2/7/2012 20:46	2038172 46DQ	MQNMC1AA		
INTRA-LAB CHECK	SOIL LCS</																	

SDG: J01417

SAF: RC-074

BATCH: 2039144

MATRIX: SOIL

ANALYSIS DATE: 2/8/12

Client_Id	Matrix	Result_t	Cas_nbr	Parameter	Result	Qualifier	Units	Reporting_Limits_Reported_Limits	Uncertainty_1s	Analyzed_Detection_level_ic	LCSReI	Added_A	Analysis_date_time	Batch_nbr	Test_Meth	Lab_sample_id
J1N4K5	SOIL	BS	7440-22-4	Ag	-1.88E-01	U	UG/G	3.59E+00	3.59E+00	2.70E-01	0.2504	G	2.22E-01	2/8/2012 22:48	2039144 46DQ	MQPFN1A0
J1N4K5	SOIL	BS	7440-38-2	As	1.42E+00	U	UG/G	3.59E+00	3.59E+00	1.20E+00	0.2504	G	9.59E-01	2/8/2012 22:48	2039144 46DQ	MQPFN1A0
J1N4K5	SOIL	BS	7440-39-3	Ba	5.87E+01		UG/G	2.80E-01	2.80E-01	5.60E-01	0.2504	G	4.60E-01	2/8/2012 22:48	2039144 46DQ	MQPFN1A0
J1N4K5	SOIL	BS	7440-41-7	Beryllium	1.83E-01		UG/G	8.99E-02	8.99E-02	1.70E-02	0.2504	G	1.39E-02	2/8/2012 22:48	2039144 46DQ	MQPFN1A0
J1N4K5	SOIL	BS	7440-43-8	Cadmium	2.12E-01	U	UG/G	1.04E+00	1.04E+00	5.50E-02	0.2504	G	4.53E-02	2/8/2012 22:48	2039144 46DQ	MQPFN1A0
J1N4K5	SOIL	BS	7440-47-3	Chromium	1.63E+01		UG/G	3.99E+00	3.99E+00	3.60E-01	0.2504	G	2.96E-01	2/8/2012 22:48	2039144 46DQ	MQPFN1A0
J1N4K5	SOIL	BS	7439-92-1	Lead	1.64E+00	U	UG/G	1.84E+00	1.84E+00	2.30E-01	0.2504	G	1.88E-01	2/8/2012 22:48	2039144 46DQ	MQPFN1A0
J1N4K5	SOIL	BS	7782-49-2	Se	1.00E+00	U	UG/G	3.39E+00	3.39E+00	6.50E-01	0.2504	G	5.33E-01	2/8/2012 22:48	2039144 46DQ	MQPFN1A0
J1N4K6	SOIL	BS	7440-22-4	Ag	-1.16E-01	U	UG/G	3.56E+00	3.56E+00	9.10E-02	0.2527	G	7.46E-02	2/8/2012 23:09	2039144 46DQ	MQPFQ1AA
J1N4K6	SOIL	BS	7440-38-2	As	1.20E+00	U	UG/G	3.56E+00	3.56E+00	1.80E-01	0.2527	G	1.45E-01	2/8/2012 23:09	2039144 46DQ	MQPFQ1AA
J1N4K6	SOIL	BS	7440-39-3	Ba	6.96E+01		UG/G	2.77E-01	2.77E-01	2.60E-01	0.2527	G	2.16E-01	2/8/2012 23:09	2039144 46DQ	MQPFQ1AA
J1N4K6	SOIL	BS	7440-41-7	Beryllium	1.91E-01		UG/G	8.90E-02	8.90E-02	6.00E-03	0.2527	G	4.95E-03	2/8/2012 23:09	2039144 46DQ	MQPFQ1AA
J1N4K6	SOIL	BS	7440-43-9	Cadmium	2.03E-01	U	UG/G	1.03E+00	1.03E+00	1.10E-01	0.2527	G	9.24E-02	2/8/2012 23:09	2039144 46DQ	MQPFQ1AA
J1N4K6	SOIL	BS	7440-47-3	Chromium	6.00E+00		UG/G	3.96E+00	3.96E+00	5.50E-02	0.2527	G	4.55E-02	2/8/2012 23:09	2039144 46DQ	MQPFQ1AA
J1N4K6	SOIL	BS	7439-92-1	Lead	1.86E+00		UG/G	1.82E+00	1.82E+00	3.70E-01	0.2527	G	3.06E-01	2/8/2012 23:09	2039144 46DQ	MQPFQ1AA
J1N4K6	SOIL	BS	7782-49-2	Se	1.12E+00	U	UG/G	3.36E+00	3.36E+00	1.10E+00	0.2527	G	9.24E-01	2/8/2012 23:09	2039144 46DQ	MQPFQ1AA
J1N4K7	SOIL	BS	7440-22-4	Ag	-2.52E-01	U	UG/G	3.60E+00	3.60E+00	1.40E-01	0.2501	G	1.13E-01	2/8/2012 23:13	2039144 46DQ	MQPFR1AA
J1N4K7	SOIL	BS	7440-38-2	As	1.20E+00	U	UG/G	3.60E+00	3.60E+00	2.60E-01	0.2501	G	2.12E-01	2/8/2012 23:13	2039144 46DQ	MQPFR1AA
J1N4K7	SOIL	BS	7440-39-3	Ba	5.68E+01		UG/G	2.80E-01	2.80E-01	3.30E+00	0.2501	G	2.71E+00	2/8/2012 23:13	2039144 46DQ	MQPFR1AA
J1N4K7	SOIL	BS	7440-41-7	Beryllium	1.81E-01		UG/G	9.00E-02	9.00E-02	2.00E-02	0.2501	G	1.63E-02	2/8/2012 23:13	2039144 46DQ	MQPFR1AA
J1N4K7	SOIL	BS	7440-43-6	Cadmium	1.97E-01	U	UG/G	1.04E+00	1.04E+00	6.10E-02	0.2501	G	5.03E-02	2/8/2012 23:13	2039144 46DQ	MQPFR1AA
J1N4K7	SOIL	BS	7440-47-3	Chromium	9.73E+00		UG/G	4.00E+00	4.00E+00	7.50E-01	0.2501	G	6.14E-01	2/8/2012 23:13	2039144 46DQ	MQPFR1AA
J1N4K7	SOIL	BS	7439-92-1	Lead	1.35E+00	U	UG/G	1.84E+00	1.84E+00	6.50E-01	0.2501	G	5.33E-01	2/8/2012 23:13	2039144 46DQ	MQPFR1AA
J1N4K7	SOIL	BS	7782-49-2	Se	1.03E+00	U	UG/G	3.40E+00	3.40E+00	4.90E-01	0.2501	G	4.00E-01	2/8/2012 23:13	2039144 46DQ	MQPFR1AA
J1N4K8	SOIL	BS	7440-22-4	Ag	-2.41E-01	U	UG/G	3.67E+00	3.67E+00	2.00E-01	0.2455	G	1.65E-01	2/8/2012 23:51	2039144 46DQ	MQPFV1AA
J1N4K8	SOIL	BS	7440-38-2	As	1.23E+00	U	UG/G	3.67E+00	3.67E+00	8.10E-01	0.2455	G	6.62E-01	2/8/2012 23:51	2039144 46DQ	MQPFV1AA
J1N4K8	SOIL	BS	7440-39-3	Ba	6.33E+01		UG/G	2.85E-01	2.85E-01	1.10E+00	0.2455	G	8.65E-01	2/8/2012 23:51	2039144 46DQ	MQPFV1AA
J1N4K8	SOIL	BS	7440-41-7	Beryllium	1.96E-01		UG/G	9.16E-02	9.16E-02	1.70E-02	0.2455	G	1.42E-02	2/8/2012 23:51	2039144 46DQ	MQPFV1AA
J1N4K8	SOIL	BS	7440-43-9	Cadmium	1.83E-01	U	UG/G	1.06E+00	1.06E+00	4.10E-02	0.2455	G	3.37E-02	2/8/2012 23:51	2039144 46DQ	MQPFV1AA
J1N4K8	SOIL	BS	7440-47-3	Chromium	9.06E+00		UG/G	4.07E+00	4.07E+00	1.80E-01	0.2455	G	1.49E-01	2/8/2012 23:51	2039144 46DQ	MQPFV1AA
J1N4K8	SOIL	BS	7439-92-1	Lead	1.46E+00	U	UG/G	1.87E+00	1.87E+00	3.90E-01	0.2455	G	3.23E-01	2/8/2012 23:51	2039144 46DQ	MQPFV1AA
J1N4K8	SOIL	BS	7782-49-2	Se	8.64E-01	U	UG/G	3.46E+00	3.46E+00	7.00E-01	0.2455	G	5.77E-01	2/8/2012 23:51	2039144 46DQ	MQPFV1AA
J1N4K9	SOIL	BS	7440-22-4	Ag	-1.62E-01	U	UG/G	3.55E+00	3.55E+00	8.40E-02	0.2533	G	6.89E-02	2/8/2012 23:35	2039144 46DQ	MQPFW1AA
J1N4K9	SOIL	BS	7440-38-2	As	9.73E-01	U	UG/G	3.55E+00	3.55E+00	1.20E+00	0.2533	G	1.03E+00	2/8/2012 23:35	2039144 46DQ	MQPFW1AA
J1N4K9	SOIL	BS	7440-39-3	Ba	6.77E+01		UG/G	2.76E-01	2.76E-01	1.20E+00	0.2533	G	9.65E-01	2/8/2012 23:35	2039144 46DQ	MQPFW1AA
J1N4K9	SOIL	BS	7440-41-7	Beryllium	1.99E-01		UG/G	8.88E-02	8.88E-02	1.30E-02	0.2533	G	1.10E-02	2/8/2012 23:35	2039144 46DQ	MQPFW1AA
J1N4K9	SOIL	BS	7440-43-9	Cadmium	2.04E-01	U	UG/G	1.03E+00	1.03E+00	6.40E-02	0.2533	G	5.30E-02	2/8/2012 23:35	2039144 46DQ	MQPFW1AA
J1N4K9	SOIL	BS	7440-47-3	Chromium	3.00E+00		UG/G	3.95E+00	3.95E+00	1.30E-01	0.2533	G	1.10E-01	2/8/2012 23:35	2039144 46DQ	MQPFW1AA
J1N4K9	SOIL	BS	7439-92-1	Lead	1.27E+00		UG/G	1.82E+00	1.82E+00	1.90E-01	0.2533	G	1.57E-01	2/8/2012 23:35	2039144 46DQ	MQPFW1AA
J1N4K9	SOIL	BS	7782-49-2	Se	1.24E+00	U	UG/G	3.36E+00	3.36E+00	3.20E-01	0.2533	G	2.66E-01	2/8/2012 23:35	2039144 46DQ	MQPFX1AA
J1N4L0	SOIL	BS	7440-22-4	Ag	-2.14E-01	U	UG/G	3.59E+00	3.59E+00	2.40E-01	0.2508	G	2.00E-01	2/8/2012 23:39	2039144 46DQ	MQPFX1AA
J1N4L0	SOIL	BS	7440-38-2	As	1.08E+00	U	UG/G	3.59E+00	3.59E+00	7.50E-01	0.2508	G	6.17E-01	2/8/2012 23:39	2039144 46DQ	MQPFX1AA
J1N4L0	SOIL	BS	7440-39-3	Ba	6.40E+01		UG/G	2.79E-01	2.79E-01	2.20E+00	0.2508	G	1.79E+00	2/8/2012 23:39	2039144 46DQ	MQPFX1AA
J1N4L0	SOIL	BS	7440-41-7	Beryllium	2.10E-01		UG/G	8.97E-02	8.97E-02	7.80E-03	0.2508	G	6.40E-03	2/8/2012 23:39	2039144 46DQ	MQPFX1AA
J1N4L0	SOIL	BS	7440-43-9	Cadmium	2.12E-01	U	UG/G	1.04E+00	1.04E+00	9.60E-03	0.2508	G	7.91E-03	2/8/2012 23:39	2039144 46DQ	MQPFX1AA
J1N4L0	SOIL	BS	7440-47-3	Chromium	6.93E+00		UG/G	3.99E+00	3.99E+00	3.80E-01	0.2508	G	3.12E-01	2/8/2012 23:39	2039144 46DQ	MQPFX1AA
J1N4L0	SOIL	BS	7439-92-1	Lead	1.67E+00	U	UG/G	1.83E+00	1.83E+00	6.20E-01	0.2508	G	5.08E-01	2/8/2012 23:39	2039144 46DQ	MQPFX1AA
J1N4L0	SOIL	BS	7782-49-2	Se	1.04E+00	U	UG/G	3.39E+00	3.39E+00	8.30E-01	0.2508	G	6.86E-01	2/8/2012 23:39	2039144 46DQ	MQPFX1AA
INTRA-LAB BLANK	SOIL	BLK	7440-22-4	Ag	1.13E-03	U	MGL	1.80E-02	1.80E-02	9.00E-04	0.2546	L	7.39E-04	2/8/2012 22:37	2039144 46DQ	MQPK11AA
INTRA-LAB BLANK	SOIL	BLK	7440-38-2	As	-6.93E-04	U	MGL	1.80E-02	1.80E-02	4.30E-03	0.2546	L	3.56E-03	2/8/2012 22:37	2039144 46DQ	MQPK11AA
INTRA-LAB BLANK	SOIL	BLK	7440-39-3	Ba	3.40E-05	U	MGL	1.40E-03	1.40E-03	3.00E-05	0.2546	L	2.50E-05	2/8/2012 22:37	2039144 46DQ	MQPK11AA
INTRA-LAB BLANK	SOIL	BLK	7440-41-7	Beryllium	5.32E-05	U	MGL	4.50E-04	4.50E-04	1.30E-05	0.2546	L	1.10E-05	2/8/2012 22:37	2039144 46DQ	MQPK11AA
INTRA-LAB BLANK	SOIL	BLK	7440-43-9	Cadmium	2.43E-04	U	MGL	5.20E-03	5.20E-03	1.30E-04	0.2546	L	1.07E-04	2/8/2012 22:37	2039144 46DQ	MQPK11AA
INTRA-LAB BLANK	SOIL	BLK	7440-47-3	Chromium	3.55E-04	U	MGL	2.00E-02	2.00E-02	2.60E-04	0.2546	L	2.16E-04	2/8/2012 22:37	2039144 46DQ	MQPK11AA
INTRA-LAB BLANK	SOIL	BLK	7439-92-1	Lead	5.74E-04	U	MGL	9.20E-03	9.20E-03	1.10E-03	0.2546	L	8.64E-04	2/8/2012 22:37	2039144 46DQ	MQPK11AA
INTRA-LAB BLANK	SOIL	BLK	7782-49-2	Se	-5.71E-04	U	MGL	1.70E-02	1.70E-02	3.70E-03	0.2546	L	3.01E-03	2/8/2012 22:37	2039144 46DQ	MQPK11AA
INTRA-LAB CHECK	SOIL	LCS	7440-22-4													

Client_Id	Matrix	Result_t	Cas_nbr	Parameter	Result	Qualifier	Units	Reporting_Limits	Reporting_Limits_Uncertainty_1s	Analyzed	Decision_level_lc	LCSR_Re_Added	Analysis_date_time	Batch_nbr	Test_Met	Lab_sample_id	
J1N4K5 DUP	SOIL DUP	7440-41-7	Beryllium	1.86E-01	UG/G	9.00E-02	9.00E-02	2.00E-02	0.25 G	1.85E-02		2/8/2012 23:05	2039144 46DQ	MQP FN1A0			
J1N4K5 DUP	SOIL DUP	7440-43-9	Cadmium	2.05E-01	U	UG/G	1.04E+00	8.60E-02	0.25 G	7.11E-02		2/8/2012 23:05	2039144 46DQ	MQP FN1A0			
J1N4K5 DUP	SOIL DUP	7440-47-3	Chromium	1.53E+01		UG/G	4.00E+00	4.00E+00	1.30E-01	0.25 G	1.06E-01		2/8/2012 23:05	2039144 46DQ	MQP FN1A0		
J1N4K5 DUP	SOIL DUP	7439-92-1	Lead	1.54E+00	U	UG/G	1.84E+00	1.84E+00	4.90E-01	0.25 G	3.99E-01		2/8/2012 23:05	2039144 46DQ	MQP FN1A0		
J1N4K5 DUP	SOIL DUP	7782-49-2	Se	9.06E-01	U	UG/G	3.40E+00	3.40E+00	1.10E+00	0.25 G	9.10E-01		2/8/2012 23:05	2039144 46DQ	MQP FN1A0		
J1N4K5	SOIL MS	7440-22-4	Ag	1.80E+02	% REC	3.62E+00	3.62E+00	1.00E+00	0.2486 L	8.35E-01	0.89	201.1	2/8/2012 23:46	2039144 46DQ	MQP FN1A0		
J1N4K5	SOIL MS	7440-38-2	As	1.81E+02	% REC	3.62E+00	3.62E+00	1.10E+00	0.2486 L	8.71E-01	0.9	201.1	2/8/2012 23:46	2039144 46DQ	MQP FN1A0		
J1N4K5	SOIL MS	7440-39-3	Ba	2.00E+02	% REC	2.82E-01	2.82E-01	4.90E+00	0.2486 L	4.04E+00	0.99	201.1	2/8/2012 23:46	2039144 46DQ	MQP FN1A0		
J1N4K5	SOIL MS	7440-41-7	Beryllium	1.83E+02	% REC	9.05E-02	9.05E-02	1.30E+00	0.2486 L	1.03E-00	0.91	201.1	2/8/2012 23:46	2039144 46DQ	MQP FN1A0		
J1N4K5	SOIL MS	7440-43-9	Cadmium	1.76E+02	% REC	1.05E+00	1.05E+00	6.60E-01	0.2486 L	5.40E-01	0.88	201.1	2/8/2012 23:46	2039144 46DQ	MQP FN1A0		
J1N4K5	SOIL MS	7440-47-3	Chromium	1.80E+02	% REC	4.02E+00	4.02E+00	1.00E+00	0.2486 L	8.63E-01	0.9	201.1	2/8/2012 23:46	2039144 46DQ	MQP FN1A0		
J1N4K5	SOIL MS	7439-92-1	Lead	1.77E+02	% REC	1.85E+00	1.85E+00	7.10E-01	0.2486 L	5.81E-01	0.88	201.1	2/8/2012 23:46	2039144 46DQ	MQP FN1A0		
J1N4K5	SOIL MS	7782-49-2	Se	1.65E+02	% REC	3.42E+00	3.42E+00	1.20E+00	0.2486 L	1.02E+00	0.82	201.1	2/8/2012 23:46	2039144 46DQ	MQP FN1A0		
J1N4K5	SOIL MSD	7440-22-4	Ag	1.79E+02	% REC	3.63E+00	3.63E+00	2.30E+00	0.248 L	1.89E+00	0.88	201.6	2/8/2012 23:00	2039144 46DQ	MQP FN1A0		
J1N4K5	SOIL MSD	7440-38-2	As	1.78E+02	% REC	3.63E+00	3.63E+00	1.10E+00	0.248 L	8.98E-01	0.88	201.6	2/8/2012 23:00	2039144 46DQ	MQP FN1A0		
J1N4K5	SOIL MSD	7440-39-3	Ba	1.83E+02	% REC	2.82E-01	2.82E-01	2.80E+01	0.248 L	2.29E+01	0.91	201.6	2/8/2012 23:00	2039144 46DQ	MQP FN1A0		
J1N4K5	SOIL MSD	7440-41-7	Beryllium	1.83E+02	% REC	9.07E-02	9.07E-02	1.90E+00	0.248 L	1.53E+00	0.91	201.6	2/8/2012 23:00	2039144 46DQ	MQP FN1A0		
J1N4K5	SOIL MSD	7440-43-9	Cadmium	1.73E+02	% REC	1.05E+00	1.05E+00	1.30E+00	0.248 L	1.05E+00	0.86	201.6	2/8/2012 23:00	2039144 46DQ	MQP FN1A0		
J1N4K5	SOIL MSD	7440-47-3	Chromium	1.81E+02	% REC	4.03E+00	4.03E+00	1.20E+00	0.248 L	1.02E+00	0.9	201.6	2/8/2012 23:00	2039144 46DQ	MQP FN1A0		
J1N4K5	SOIL MSD	7439-92-1	Lead	1.75E+02	% REC	1.85E+00	1.85E+00	1.70E+00	0.248 L	1.41E+00	0.87	201.6	2/8/2012 23:00	2039144 46DQ	MQP FN1A0		
J1N4K5	SOIL MSD	7782-49-2	Se	1.64E+02	% REC	3.43E+00	3.43E+00	2.30E+00	0.248 L	1.91E+00	0.81	201.6	2/8/2012 23:00	2039144 46DQ	MQP FN1A0		

**Richland Laboratory
Data Review Check List
Hexavalent Chromium**

Batch Number(s):	2038182			
Lab Sample Numbers or SDG:	J01417			
Method/Test/Parameter:	Cr+6 in SOLID / RL-WC-004			
Review Item	Yes (✓)	No (✗)	N/A (✗)	2 nd Level Review (✓)
A. Initial Calibration				
1. Performed at required frequency with required number of levels?	✓			✓
2. Correlation coefficient within QC limits?	✓			✓
3. Initial calibration verification (ICV) analyzed immediately after calibration and results within QC limits?	✓			✓
4. Initial calibration blank (ICB) analyzed immediately after ICV and concentrations of all parameters \leq reporting limit?	✓			✓
B. Continuing Calibration				
1. CCV analyzed at required frequency and all parameters within QC limits?	✓			✓
2. CCB analyzed at required frequency and all results \leq reporting limit?	✓			✓
C. Sample Analysis			✓	✓
1. Were any samples with concentrations above the linear range for any parameter diluted and reanalyzed?				✓
2. Were all sample holding times met?	✓			✓
D. QC Samples				
1. All results for the preparation blank below limits?				✓
2. MS or MS/MSD recoveries within QC limits and %RPD (for MSD) acceptable?	✓			✓
3. LCS percent recovery within QC limits and %RPD (for LCSD) acceptable?	✓			✓
4. Analytical spikes within QC limits where applicable?	✓			✓
5. ICP only: One serial dilution performed per SDG?		✓		✓
6. ICP only: CRDL standard (CRI or CRA) analyzed at required frequency?		✓		✓
7. ICP only: Interference check samples (ICSA, ICSAB) and HICAL analyzed at the required frequencies and within QC limits?		✓		✓

Review Item	Yes (✓)	No (✓)	N/A (✓)	2 nd Level Review (✓)
E. Other	✓			✓
1. Are all nonconformances included and noted?				
2. Is the correct date and time of analysis shown?	✓			✓
3. Did the analyst sign and date the front page of the analytical run?	✓			✓
4. Correct methodology used?	✓			✓
5. Transcriptions checked?	✓			✓
6. Calculations checked at minimum frequency?	✓			✓
7. Units checked?	✓			✓

Comments on any "No" response:

The MS recovered high at 129.9%. The insoluble MS recovered within limits at 99.1%. PDMS recovered at 95.3%.

Suspect reducing capacity in the sample, but not enough to exhaust the more copious insoluble MS.

Analyst: H. Rahbari

Date: 2-9-12

Second-Level Review: JR

Date: 2/8/12

Clouseau Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-20384**
NCM Initiated By: Hooshang Rahavi
Date Opened: 02/08/2012
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Classical Chemistry
Tests: 7196A
Lot #'s (Sample #'s): J2B070000 (182),
J2B070467 (1,2,3),
QC Batches: 2038182,

Nonconformance: QC data exceeded criteria
Subcategory: MS/MSD accuracy and/or precision out of control

Problem Description / Root Cause

Name	Date	Description
Hooshang Rahavi	02/08/2012	The MS recovered high at 129.9%. The insoluble MS recovered within limits at 99.1%. PDMS recovered at 95.3%.
Suspect reducing capacity in the sample, but not enough to exhaust the more copious insoluble MS.		

Corrective Action

Name	Date	Corrective Action
Hooshang Rahavi	02/08/2012	Report data

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
	Response		Response Note		

Quality Assurance Verification

Verified By	Due Date	Status	Notes
This section not yet completed by QA.			

Approval History

Date Approved	Approved By	Position

TW2/8/12

**Richland Laboratory
Data Review Check List
Hexavalent Chromium**

Batch Number(s): 2039141

Lab Sample Numbers or SDG: J01417

Method/Test/Parameter: Cr+6 in SOLID / RL-WC-004

Review Item	Yes (✓)	No (✗)	N/A (✗)	2 nd Level Review (✓)
A. Initial Calibration				
1. Performed at required frequency with required number of levels?	✓			✓
2. Correlation coefficient within QC limits?	✓			✓
3. Initial calibration verification (ICV) analyzed immediately after calibration and results within QC limits?	✓			✓
4. Initial calibration blank (ICB) analyzed immediately after ICV and concentrations of all parameters \leq reporting limit?	✓			✓
B. Continuing Calibration				
1. CCV analyzed at required frequency and all parameters within QC limits?	✓			✓
2. CCB analyzed at required frequency and all results \leq reporting limit?	✓			✓
C. Sample Analysis			✓	
1. Were any samples with concentrations above the linear range for any parameter diluted and reanalyzed?				✓
2. Were all sample holding times met?	✓			✓
D. QC Samples				
1. All results for the preparation blank below limits?				✓
2. MS or MS/MSD recoveries within QC limits and %RPD (for MSD) acceptable?	✓			✓
3. LCS percent recovery within QC limits and %RPD (for LCSD) acceptable?	✓			✓
4. Analytical spikes within QC limits where applicable?	✓			✓
5. ICP only: One serial dilution performed per SDG?		✓		✓
6. ICP only: CRDL standard (CRI or CRA) analyzed at required frequency?		✓		✓
7. ICP only: Interference check samples (ICSA, ICSAB) and HICAL analyzed at the required frequencies and within QC limits?		✓		✓

Review Item	Yes (✓)	No (✗)	N/A (✗)	2 nd Level Review (✓)
E. Other			✓	
1. Are all nonconformances included and noted?				✓
2. Is the correct date and time of analysis shown?	✓			✓
3. Did the analyst sign and date the front page of the analytical run?	✓			✓
4. Correct methodology used?	✓			✓
5. Transcriptions checked?	✓			✓
6. Calculations checked at minimum frequency?	✓			✓
7. Units checked?	✓			✓

Comments on any "No" response:

Analyst: H. Rahvari

Date: 2-9-12

Second-Level Review: J. H. Park

Date: 2/9/12

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-074-365	Page 1 of 1
Collector Q Stowe		Company Contact Joan Kessner Telephone No. 509-375-4688		Project Coordinator KESSNER, JH		Price Code <i>SL</i> <i>2A</i>	Data Turnaround <i>21 Days</i> <i>24 Hrs</i>
Project Designation 100-D/DR Burial Grounds & Remaining Sites - Soil In-Proce		Sampling Location 100-D-30 Excavation @ 35' bgs (133.5 m)		SAF No. RC-074		<i>Q 2-6-12</i>	
Ice Chest No. N/A		Field Logbook No. EL-1607-13		COA R00D302000		Method of Shipment Hand Deliver <i>D 2-6-12</i>	
Shipped To TestAmerica Incorporated, Richland		Offsite Property No. N/A		Bill of Lading/Air Bill No. N/A			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>None</i>							
Special Handling and Cool 4 Deg C		Preservation		Cool 4C	Cool 4C		
		Type of Container		G/P	G/P		
		No. of Container(s)		1	1		
		Volume		125mL	125mL		
		See item (1) in Special Instructions.		Chromium Hex - 7196 - Quick Turn (Hexavalent Chromium)			
J1N4K2 MQNLW		SAMPLE ANALYSIS J2B070467 Due 2-8-12					
Sample No.	Matrix *	Sample Date	Sample Time				
J1N4K2 MQNLW	SOIL	2/7/12	1405	X	X		
J1N4K3 MQNLV	SOIL	2/7/12	1407	X	X		
J1N4K4 MQNLW	SOIL	2/7/12	1410	X	X		
CHAIN OF POSSESSION Sign/Print Names							
Relinquished By/Removed From <i>Quincy Stowe</i>	Date/Time <i>2-7-12</i>	Received By/Stored In <i>JV Fullmer</i>	Date/Time <i>2-7-12</i>	SPECIAL INSTRUCTIONS (1) Metals by ICP - 6010 - Quick Turn (Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver)			
Relinquished By/Removed From <i>JV Fullmer</i>	Date/Time <i>2/7/12</i>	Received By/Stored In <i>A. Freier A. Greive</i>	Date/Time <i>2-7-12</i>				
Relinquished By/Removed From <i>A. Freier A. Greive</i>	Date/Time <i>2-7-12</i>	Received By/Stored In <i>CM Bingham</i>	Date/Time <i>2/7/12 1425</i>				
Relinquished By/Removed From <i>CM Bingham</i>	Date/Time <i>2/7/12 1640</i>	Received By/Stored In <i>J. Bixby Backus</i>	Date/Time <i>2/7/12 1640</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Sample Check-in List

Date/Time Received: 2-7-12 | 1640 Container GM Screen Result: (Airlock) 04 Initials B]
 Sample GM Screen Result (Sample Receiving) 02 Initials B]

Client: WLT SDG #: J01417 NA [] SAF #: RC-074 NA []

Lot Number: JABON0467

Chain of Custody # RC-074-3105

Shipping Container ID: hand deliv NA BW Air Bill Number: _____ NA B

Samples received inside shipping container/cooler/box

Yes B] Continue with 1 through 4. Initial appropriate response.

No [] Go to 5, add comment to #16.

- | | | | |
|--|--------------------------|---------|----------------------------|
| 1. Custody Seals on shipping container intact? | Yes [] | No [] | No Custody Seal <u>B</u>] |
| 2. Custody Seals dated and signed? | Yes [] | No [] | No Custody Seal <u>B</u>] |
| 3. Cooler temperature: | <u>-4 °C OR -10° NAT</u> | | |
| 4. Vermiculite/packing materials is | NA <u>B</u>] | Wet [] | Dry [] |

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes B] No []

6. Number of samples received (Each sample may contain multiple bottles): 3

7. Containers received: 6 x 125 ml p

8. Sample holding times exceeded? NA [] Yes [] No B]

9. Samples have:
 tape
 custody seals hazard labels
 appropriate sample labels

10. Matrix:
 A (FLT, Wipe, Solid, Soil)
 S (Air, Niosh 7400) I (Water)
 T (Biological, Ni-63)

11. Samples:
 are in good condition are leaking
 are broken have air bubbles (Only for samples requiring no head space)
 Other _____

12. Sample pH appropriate for analysis requested Yes [] No [] NA B]
 (If acidification is necessary, then document sample ID, initial pH, amount of HNO₃ added and pH after addition on table overleaf)

RPL ID # of preservative used : _____

13. Were any anomalies identified in sample receipt? Yes [] No B]

14. Description of anomalies (include sample numbers): NA B] _____

15. Sample Location, Sample Collector Listed on COC? * Yes] No []
*For documentation only. No corrective action needed.

16. Additional Information: _____

Client/Courier denied temperature check. Client/Courier unpack cooler.

Sample Custodian: Jrei Box Date: 2-7-12

Client Informed on _____ by _____ Person contacted _____

No action necessary; process as is

Project Manager _____ Date _____

The figure displays two titration curves plotted on graph paper. The x-axis is labeled "Acid Amt" and the y-axis is labeled "pH".

Sample 1 (Left):

- Initial pH: 10.0
- Final pH: 2.0
- Acid Amt: 1.0

Sample 2 (Right):

- Initial pH: 10.0
- Final pH: 2.0
- Acid Amt: 2.0

J2B070467

DW 2/8/12

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-074-366	Page 1 of 1
Collector Q Stowe		Company Contact Joan Kessner		Telephone No. 509-375-4688	Project Coordinator KESSNER, JH	Price Code <i>SL 2A</i>	Data Turnaround <i>21 Days 24 hrs</i>
Project Designation 100-D/DR Burial Grounds & Remaining Sites - Soil In-Proce		Sampling Location 100-D-30 Excavation @ 40' bgs (133.5 m)		<i>2-6-12</i>	SAF No. RC-074		
Ice Chest No. N/A		Field Logbook No. EL-1607-13		COA R00D302000	Method of Shipment Hand Deliver	<i>2-6-12</i>	
Shipped To TestAmerica Incorporated, Richland		Offsite Property No. N/A		Bill of Lading/Air Bill No. N/A			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>None</i>		Preservation Type of Container No. of Container(s) Volume	Cool 4C	Cool 4C			
Special Handling and/or Storage <i>Cool 4 Deg C SDG # J01417 LOT # J2B080454</i>			G/P	G/P			
<i>Report 2/8/12</i>			1	1			
			125mL	125mL			
SAMPLE ANALYSIS				See item (1) in Special Instructions.	Chromium Hex - 7196 - Quick Turn (Hexavalent Chromium)		
Sample No.	Matrix *	Sample Date	Sample Time				
J1N4K5 <i>MQPEN</i>	SOIL	<i>2/8/12</i>	<i>0828</i>	X	Y		
J1N4K6 <i>MQPFO</i>	SOIL		<i>0829</i>	X	Y		
J1N4K7 <i>MQPFR</i>	SOIL		<i>0830</i>	X	X		
CHAIN OF POSSESSION <i>no 2/8/12</i>				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Quincy Stowe</i>	Date/Time <i>0850</i>	Received By/Stored In <i>WCH</i>	Date/Time <i>0850</i>	(1) Metals by ICP - 6010 - Quick Turn (Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver)			
<i>mstankevich</i>	<i>2-10-12</i>	<i>mstankevich</i>	<i>2/8/12</i>				
Relinquished By/Removed From <i>mstankevich</i>	Date/Time <i>1540</i>	Received By/Stored In <i>WCH</i>	Date/Time <i>1540</i>				
<i>mstankevich</i>	<i>2/8/12</i>	<i>WCH</i>	<i>2/8/12</i>				
Relinquished By/Removed From <i>WCH</i>	Date/Time <i>1035</i>	Received By/Stored In <i>TGR</i>	Date/Time <i>1035</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					RC-074-367	Page 1 of 1
Collector Q Stowe		Company Contact Joan Kessner Telephone No. 509-375-4688			Project Coordinator KESSNER, JH		Price Code <i>BL</i> <i>2A</i>	Data Turnaround <i>21 Days</i> <i>24 hrs</i>
Project Designation 100-D/DR Burial Grounds & Remaining Sites - Soil In-Proce		Sampling Location 100-D-30 Excavation @ 45' bgs (133.5 m) <i>2-6-12</i>			SAF No. RC-074			
Ice Chest No. N/A		Field Logbook No. EL-1607-13		COA R00D302000		Method of Shipment Hand Deliver		<i>2-6-12</i>
Shipped To TestAmerica Incorporated, Richland		Offsite Property No. N/A			Bill of Lading/Air Bill No. N/A			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>None</i>		Preservation Type of Container No. of Container(s) Volume	Cool 4C	Cool 4C				
Special Handling and/or Storage <i>Cool 4 Deg C SDG# JO1417 LOT# J2B080454</i>			G/P	G/P				
			1	1				
			125mL	125mL				
SAMPLE ANALYSIS				See item (1) in Special Instructions.	Chromium Hex - 7196 - Quick Turn (Hexavalent Chromium)			
Sample No.	Matrix *	Sample Date	Sample Time					
J1N4K8 <i>MQPFW</i>	SOIL	<i>2/8/12</i>	<i>0953</i>	X	X			
J1N4K9 <i>MQPFW</i>	SOIL		<i>0954</i>	X	X			
J1N4L0 <i>MQPFX</i>	SOIL	<i>↓</i>	<i>0955</i>	X	X			
CHAIN OF POSSESSION				Sign/Print Names			SPECIAL INSTRUCTIONS	
Relinquished By/Removed From <i>Quincy Stowe</i>	Date/Time <i>2/8/12</i>	Received By/Stored In <i>wch</i>	Date/Time <i>1010</i>	(1) Metals by ICP - 6010 - Quick Turn {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}			Matrix * S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Time WI=Wipe LI=Liquid V=Vegetation X=Other	
Relinquished By/Removed From <i>mstankovich</i>	Date/Time <i>2/8/12 1540</i>	Received By/Stored In <i>mstankovich</i>	Date/Time <i>2/8/12 1540</i>					
Relinquished By/Removed From <i>lucas</i>	Date/Time <i>2/8/12 1635</i>	Received By/Stored In <i>PAIR</i>	Date/Time <i>2/8/12 1635</i>					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By	Title			Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By			Date/Time			

Sample Check-in List

Date/Time Received: 2-28-12 / 11:35 Container GM Screen Result: (Airlock) 14 Initials [W]
 Sample GM Screen Result (Sample Receiving) 0.0 Initials []

Client: WCH SDG #: J01417 NA [] SAF #: RC-074 NA []

Lot Number: J2B080454

Chain of Custody # RC-074-367; 3rd

Shipping Container ID: hand de Div NA [B] Air Bill Number: _____ NA [B]

Samples received inside shipping container/coolier/box Yes [B] Continue with 1 through 4. Initial appropriate response.

No [] Go to 5, add comment to #16.

- | | | | |
|--|-----------------------------------|---------|------------------------------|
| 1. Custody Seals on shipping container intact? | Yes [] | No [] | No Custody Seal [<u>B</u>] |
| 2. Custody Seals dated and signed? | Yes [] | No [] | No Custody Seal [<u>B</u>] |
| 3. Cooler temperature: | <u>7</u> °C <u>ON ICE</u> NAT [] | | |
| 4. Vermiculite/packing materials is | NA [<u>B</u>] | Wet [] | Dry [] |

Item 5 through 16 for samples. Initial appropriate response.

- | | | | |
|--|---|---------|-----------------|
| 5. Chain of Custody record present? | Yes [<u>B</u>] | No [] | |
| 6. Number of samples received (Each sample may contain multiple bottles): | <u>10</u> | | |
| 7. Containers received: | <u>12 x 125 mL</u> | | |
| 8. Sample holding times exceeded? | NA [] | Yes [] | No [<u>B</u>] |
| 9. Samples have: | <u>tape</u> hazard labels
<u>custody seals</u> appropriate sample labels | | |
| 10. Matrix: | <u>A</u> (FLT, Wipe, Solid, Soil) I (Water)
<u>S</u> (Air, Niosh 7400) T (Biological, Ni-63) | | |
| 11. Samples: | <u>OK</u> are in good condition
<u>OK</u> are broken
<u>Other</u> are leaking
<u>Other</u> have air bubbles (Only for samples requiring no head space) | | |
| 12. Sample pH appropriate for analysis requested
(If acidification is necessary, then document sample ID, initial pH, amount of HNO ₃ added and pH after addition on table overleaf) | Yes [] No [] NA [<u>B</u>] | | |
| RPL ID # of preservative used : | | | |
| 13. Were any anomalies identified in sample receipt? | Yes [] No [<u>B</u>] | | |
| 14. Description of anomalies (include sample numbers): | <u>NA []</u> | | |

15. Sample Location, Sample Collector Listed on COC? * Yes [] No []
*For documentation only. No corrective action needed.

16. Additional Information: _____

Client/Courier denied temperature check. Client/Courier unpack cooler.

Sample Custodian: Juan Balle Date: 3-8-12

Client Informed on _____ by _____ Person contacted _____

No action necessary; process as is.

Project Manager _____ Date _____

ज्ञावो४५४

Qwæða

Sample Preparation/Analysis												Balance Id:															
DW Alkaline Digestion by method 3060A EA Chromium, Hexavalent (7196A) SI CLIENT: HANFORD												Pipet #:															
AnalyDueDate: 02/08/2012												Sep1 DT/Tm Tech:															
Batch: 2038182 SOIL mg/kg PM, Quote: RW2, 88144 SEQ Batch, Test: None All Tests: 2038172 , 2038172 46DQ, 2038182 DWEA,												Sep2 DT/Tm Tech:															
<table border="1"> <thead> <tr> <th>Work Ord, Lot, Sample Date</th> <th>Total Amt/Unit</th> <th>Total Acidified/Unit</th> <th>Initial Aliquot Amt/Unit</th> <th>Adj Aliq Amt (Un-Acidified)</th> <th>QC Tracer Prep Date</th> <th>Tracer Yield</th> <th>Dish Size</th> <th>Ppt or Geometry</th> <th>Count Time Min</th> <th>Detector Id</th> <th>Count On Off (24hr) Circle</th> <th>CR Analyst, Init/Date</th> <th>Comments:</th> </tr> </thead> </table>													Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:	Prep Tech:
Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:														
1 MQNLR-1-AC																											
J2B070467-1-SAMP																											
02/07/2012 14:05 AmtRec: 2X125MLP #Containers: 2																											
Scr. Alpha: Beta:																											
2 MQNLR-1-CE-S																											
J2B070467-1-MS																											
02/07/2012 14:05 AmtRec: 2X125MLP #Containers: 2																											
Scr. Alpha: Beta:																											
3 MQNLR-1-CG-X																											
J2B070467-1-DUP																											
02/07/2012 14:05 AmtRec: 2X125MLP #Containers: 2																											
Scr. Alpha: Beta:																											
4 MQNLV-1-AC																											
J2B070467-2-SAMP																											
02/07/2012 14:07 AmtRec: 2X125MLP #Containers: 2																											
Scr. Alpha: Beta:																											
5 MQNLW-1-AC																											
J2B070467-3-SAMP																											
02/07/2012 14:10 AmtRec: 2X125MLP #Containers: 2																											
Scr. Alpha: Beta:																											
6 MQNN9-1-AA-B																											
J2B070000-182-BLK																											
02/07/2012 19:46 pd AmtRec: #Containers: 1																											
Scr. Alpha: Beta:																											
7 MQNN9-1-AC-C																											
J2B070000-182-LCS																											
02/07/2012 19:46 pd AmtRec: #Containers: 1																											
Scr. Alpha: Beta:																											
TestAmerica Richland Wa.		Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added										ISV - Insufficient Volume for Analysis		WO Cnt: 7 ICOC v4.8.49													
Page 1																											

2/9/2012 10:56:28 AM

Sample Preparation/Analysis

Balance Id:

DW Alkaline Digestion by method 3060A

Pipet #: _____

EA Chromium, Hexavalent (7196A)

SI CLIENT: HANFORD

Sep1 DT/Tm Tech:

AnalyDueDate: 02/08/2012

Sep2 DT/Tm Tech:

Batch: 2038182 mg/kg

Prep Tech:

SEQ Batch, Test: None



TestAmerica Laboratories, Inc.

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
----------------------------	----------------	----------------------	--------------------------	-----------------------------	---------------------	--------------	-----------	-----------------	----------------	-------------	------------------------------	-----------------------	-----------

Comments:

All Clients for Batch:

127642, Washington Closure Hanford LLC

Washington Closure Hanford LLC, RW2, 88144

MQNLR1AC-SAMP Constituent List:

HEXCHROME RDL:0.1548 mg/kg LCL:80 UCL:120 RPD:20

MQNLR1CE-MS Constituent List:

HEXCHROME RDL:0.35 mg/kg LCL:75 UCL:125 RPD:20

40 MQNN91AA-BLK:

HEXCHROME RDL:0.1548 mg/kg LCL: UCL: RPD:

MQNN91AC-LCS:

HEXCHROME RDL:0.35 mg/kg LCL:80 UCL:120 RPD:20

MQNLR1AC-SAMP Calc Info:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

MQNLR1CE-MS Calc Info:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

MQNN91AA-BLK:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

MQNN91AC-LCS:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2

Page 2

ISV - Insufficient Volume for Analysis

Richland Wa.

pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

WO Cnt: 7

ICOC v4.8.49

2/8/2012 6:48:12 PM	Sample Preparation/Analysis										Balance Id:															
127642, Washington Closure Hanford LLC Washington Closure Hanford LLC	DW Alkaline Digestion by method 3060A EA Chromium, Hexavalent (7196A)										Pipet #: _____															
AnalyDueDate: 02/09/2012	SI CLIENT: HANFORD										Sep1 DT/Tm Tech:															
Batch: 2039141 SOIL mg/kg	PM, Quote: RW2, 88144										Sep2 DT/Tm Tech:															
SEQ Batch, Test: None All Tests: 46DQ, 2039141 DWEA,											Prep Tech:															
<table border="1"> <thead> <tr> <th>Work Ord, Lot, Sample Date</th> <th>Total Amt/Unit</th> <th>Total Acidified/Unit</th> <th>Initial Aliquot Amt/Unit</th> <th>Adj Aliq Amt (Un-Acidified)</th> <th>QC Tracer Prep Date</th> <th>Tracer Yield</th> <th>Dish Size</th> <th>Ppt or Geometry</th> <th>Count Time Min</th> <th>Detector Id</th> <th>Count On Off (24hr) Circle</th> <th>CR Analyst, Init/Date</th> <th>Comments:</th> </tr> </thead> </table>													Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:													
1 MQPFN-1-AC																										
J2B080454-1-SAMP																										
																										
02/08/2012 08:28 AmtRec: 2X125P #Containers: 2 Scr: Alpha: Beta:																										
2 MQPFN-1-AL-S																										
J2B080454-1-MS																										
																										
02/08/2012 08:28 AmtRec: 2X125P #Containers: 2 Scr: Alpha: Beta:																										
3 MQPFN-1-AM-X																										
J2B080454-1-DUP																										
																										
02/08/2012 08:28 AmtRec: 2X125P #Containers: 2 Scr: Alpha: Beta:																										
4 MQPFQ-1-AC																										
J2B080454-2-SAMP																										
																										
02/08/2012 08:29 AmtRec: 2X125P #Containers: 2 Scr: Alpha: Beta:																										
5 MQPFR-1-AC																										
J2B080454-3-SAMP																										
																										
02/08/2012 08:30 AmtRec: 2X125P #Containers: 2 Scr: Alpha: Beta:																										
6 MQPFV-1-AC																										
J2B080454-4-SAMP																										
																										
02/08/2012 09:53 AmtRec: 2X125P #Containers: 2 Scr: Alpha: Beta:																										
7 MQPFW-1-AC																										
J2B080454-5-SAMP																										
																										
02/08/2012 09:54 AmtRec: 2X125P #Containers: 2 Scr: Alpha: Beta:																										
TestAmerica Richland Wa.	Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added										ISV - Insufficient Volume for Analysis	WO Cnt: 7														
												ICOC v4.8.49														

2/8/2012 6:48:13 PM	Sample Preparation/Analysis										Balance Id:					
127642, Washington Closure Hanford LLC Washington Closure Hanford LLC	DW Alkaline Digestion by method 3060A EA Chromium, Hexavalent (7196A) SI CLIENT: HANFORD										Pipet #: _____					
AnalyDueDate: 02/09/2012											Sep1 DT/Tm Tech:					
Batch: 2039141 SOIL mg/kg	PM, Quote: RW2, 88144										Sep2 DT/Tm Tech:					
SEQ Batch, Test: None											Prep Tech:					
Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:			
8 MQPFX-1-AC											Scr:	Alpha:	Beta:			
J2B080454-6-SAMP											02/08/2012 09:55	AmtRec: 2X125P	#Containers: 2	Scr:	Alpha:	Beta:
9 MQPJQ-1-AA-B											02/08/2012 18:48 pd	AmtRec:	#Containers: 1	Scr:	Alpha:	Beta:
10 MQPJQ-1-AC-C											02/08/2012 18:48 pd	AmtRec:	#Containers: 1	Scr:	Alpha:	Beta:
Comments:																
All Clients for Batch: 127642, Washington Closure Hanford LLC	Washington Closure Hanford LLC, RW2, 88144															
MQPFN1AC-SAMP Constituent List:																
MQPFN1AL-MS Constituent List:																
MQPJQ1AA-BLK:																
MQPJQ1AC-LCS:																
MQPFN1AC-SAMP Calc Info: Uncert Level (#s):: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B																
MQPFN1AL-MS Calc Info: Uncert Level (#s):: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B																
MQPJQ1AA-BLK: Uncert Level (#s):: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B																
TestAmerica Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Richland Wa. pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added	ISV - Insufficient Volume for Analysis											WO Cnt: 10 ICOC v4.8.49				

2/8/2012 6:48:13 PM

Sample Preparation/Analysis

Balance Id:

DW Alkaline Digestion by method 3060A
 EA Chromium, Hexavalent (7196A)

Pipet #: _____

AnalyDueDate: 02/09/2012

SI CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 2039141

mg/kg

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:



Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
-------------------------------	-------------------	-------------------------	-----------------------------	--------------------------------	------------------------	-----------------	--------------	--------------------	-------------------	----------------	---------------------------------	--------------------------	-----------

MOPJQ1AC-LCS:

Uncert Level (#s) : 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y QDRs: B

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-25508-1

SDG Number: J01417

Job Description: SAF# RC-074

For:
Washington Closure Hanford
2620 Fermi Avenue
Richland, WA 99354
Attention: Joan H Kessner



Approved for release.
Kae E Yoder
Project Manager II
2/16/2012 1:35 PM

Kae E Yoder
Project Manager II
kae.yoder@testamericainc.com
02/16/2012

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.
TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002
Tel (303) 736-0100 Fax (303) 431-7171 www.testamericainc.com



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CASE NARRATIVE

Client: Washington Closure Hanford

Project: WASHINGTON CLOSURE HANFORD

Report Number: 280-25508-1

**SDG #: J01417
SAF#: RC-074**

**Date SDG Closed: February 10, 2012
Data Deliverable: 7 Day / Summary**

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1N4K2	280-25508-1	1311-6010-7470	1311-6010B-7470A

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed in this Case Narrative. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the signature on the Report Cover.

With exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. All laboratory quality control samples analyzed in conjunction with the samples in this project were within established control limits, with any exceptions noted. Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The sample was received on 2/10/2012; the sample arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 2.6 C.

Sample J1N4K2, as listed on the chain-of-custody, was logged for TCLP Metals 1311/6010B/7470A analysis, as instructed by the client. It can be noted that additional samples/analyses listed on the chain-of-custody were not submitted for analysis.

TCLP METALS - SW846 1311/6010B/7470A

Low levels of Barium are present in the method blank associated with batch 280-107424. Because the concentration in the method blank is not present at a level greater than half the reporting limit, corrective action is deemed unnecessary.

Chromium was recovered outside the control limits in the Matrix Spike performed on sample J1N4K2, and the associated sample result has been flagged "N". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-25508-1

Sdg Number: J01417

Lab Section	Qualifier	Description
Metals		
	U	Analyzed for but not detected.
	B	Estimated result. Result is less than the RL, but greater than MDL
	N	Recovery exceeds upper or lower control limits

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-25508-1
Sdg Number: J01417

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
TCLP Metals (ICP)	TAL DEN	SW846 6010B	
TCLP Extraction	TAL DEN	SW846 1311	
Preparation, Total Metals	TAL DEN	SW846 3010A	
TCLP Mercury	TAL DEN	SW846 7470A	
TCLP Extraction	TAL DEN	SW846 1311	
Preparation, Mercury	TAL DEN	SW846 7470A	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Washington Closure Hanford

Job Number: 280-25508-1
Sdg Number: J01417

Method	Analyst	Analyst ID
SW846 6010B	Harre, John K	JKH
SW846 7470A	Rawlings, Brendon L	BLR

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-25508-1

Sdg Number: J01417

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-25508-1	J1N4K2	Solid	02/07/2012 1405	02/10/2012 0900

SAMPLE RESULTS

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-25508-1
Sdg Number: J01417

Client Sample ID: J1N4K2

Lab Sample ID: 280-25508-1

Date Sampled: 02/07/2012 1405

Client Matrix: Solid

Date Received: 02/10/2012 0900

6010B TCLP Metals (ICP)-TCLP

Analysis Method:	6010B	Analysis Batch:	280-107671	Instrument ID:	MT_025
Prep Method:	3010A	Prep Batch:	280-107424	Lab File ID:	25A6021412.asc
Dilution:	1.0	Leach Batch:	280-107287	Initial Weight/Volume:	10 mL
Analysis Date:	02/15/2012 0437			Final Weight/Volume:	50 mL
Prep Date:	02/14/2012 1330				
Leach Date:	02/12/2012 1430				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.022	U	0.022	0.50
Barium		0.68	B	0.0020	1.0
Cadmium		0.0020	U	0.0020	0.10
Chromium		7.1	N	0.0030	0.50
Lead		0.013	U	0.013	0.50
Selenium		0.024	U	0.024	0.10
Silver		0.0040	U	0.0040	0.50

7470A TCLP Mercury-TCLP

Analysis Method:	7470A	Analysis Batch:	280-107505	Instrument ID:	MT_033
Prep Method:	7470A	Prep Batch:	280-107388	Lab File ID:	120213ab2.txt
Dilution:	1.0	Leach Batch:	280-107287	Initial Weight/Volume:	30 mL
Analysis Date:	02/13/2012 2126			Final Weight/Volume:	30 mL
Prep Date:	02/13/2012 1230				
Leach Date:	02/12/2012 1430				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Mercury		0.000030	U	0.000030	0.0020

QUALITY CONTROL RESULTS

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-25508-1
Sdg Number: J01417

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-107287					
LCS 280-107287/2-B	Lab Control Sample	P	Solid	1311	
LCS 280-107287/2-C	Lab Control Sample	P	Solid	1311	
LB 280-107287/1-B	TCLP SPLPE Leachate Blank	P	Solid	1311	
LB 280-107287/1-C	TCLP SPLPE Leachate Blank	P	Solid	1311	
280-25508-1	J1N4K2	P	Solid	1311	
280-25508-1DU	Duplicate	P	Solid	1311	
280-25508-1MS	Matrix Spike	P	Solid	1311	
Prep Batch: 280-107388					
LCS 280-107287/2-B	Lab Control Sample	P	Solid	7470A	280-107287
LB 280-107287/1-B	TCLP SPLPE Leachate Blank	P	Solid	7470A	280-107287
280-25508-1	J1N4K2	P	Solid	7470A	280-107287
280-25508-1DU	Duplicate	P	Solid	7470A	280-107287
280-25508-1MS	Matrix Spike	P	Solid	7470A	280-107287
Prep Batch: 280-107424					
LCS 280-107287/2-C	Lab Control Sample	P	Solid	3010A	280-107287
LB 280-107287/1-C	TCLP SPLPE Leachate Blank	P	Solid	3010A	280-107287
280-25508-1	J1N4K2	P	Solid	3010A	280-107287
280-25508-1DU	Duplicate	P	Solid	3010A	280-107287
280-25508-1MS	Matrix Spike	P	Solid	3010A	280-107287
Analysis Batch:280-107505					
LCS 280-107287/2-B	Lab Control Sample	P	Solid	7470A	280-107388
LB 280-107287/1-B	TCLP SPLPE Leachate Blank	P	Solid	7470A	280-107388
280-25508-1	J1N4K2	P	Solid	7470A	280-107388
280-25508-1DU	Duplicate	P	Solid	7470A	280-107388
280-25508-1MS	Matrix Spike	P	Solid	7470A	280-107388
Analysis Batch:280-107671					
LCS 280-107287/2-C	Lab Control Sample	P	Solid	6010B	280-107424
LB 280-107287/1-C	TCLP SPLPE Leachate Blank	P	Solid	6010B	280-107424
280-25508-1	J1N4K2	P	Solid	6010B	280-107424
280-25508-1DU	Duplicate	P	Solid	6010B	280-107424
280-25508-1MS	Matrix Spike	P	Solid	6010B	280-107424

Report Basis

P = TCLP

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-25508-1

Sdg Number: J01417

TCLP SPLPE Leachate Blank - Batch: 280-107424**Method: 6010B****Preparation: 3010A****TCLP**

Lab Sample ID:	LB 280-107287/1-C	Analysis Batch:	280-107671	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-107424	Lab File ID:	25A6021412.asc
Dilution:	1.0	Leach Batch:	280-107287	Initial Weight/Volume:	10 mL
Analysis Date:	02/15/2012 0432	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	02/14/2012 1330				
Leach Date:	02/12/2012 1430				

Analyte	Result	Qual	MDL	RL
Arsenic	0.022	U	0.022	0.50
Barium	0.0861	B	0.0020	1.0
Cadmium	0.0020	U	0.0020	0.10
Chromium	0.0030	U	0.0030	0.50
Lead	0.013	U	0.013	0.50
Selenium	0.024	U	0.024	0.10
Silver	0.0040	U	0.0040	0.50

Lab Control Sample - Batch: 280-107424**Method: 6010B****Preparation: 3010A****TCLP**

Lab Sample ID:	LCS 280-107287/2-C	Analysis Batch:	280-107671	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-107424	Lab File ID:	25A6021412.asc
Dilution:	1.0	Leach Batch:	280-107287	Initial Weight/Volume:	10 mL
Analysis Date:	02/15/2012 0434	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	02/14/2012 1330				
Leach Date:	02/12/2012 1430				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	4.00	3.79	95	80 - 120	
Barium	12.0	11.99	100	80 - 120	
Cadmium	1.10	1.05	96	80 - 120	
Chromium	5.20	5.04	97	80 - 120	
Lead	5.50	5.16	94	80 - 120	
Selenium	3.00	2.81	94	80 - 120	
Silver	1.05	1.01	96	80 - 120	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-25508-1
Sdg Number: J01417**Matrix Spike - Batch: 280-107424****Method: 6010B
Preparation: 3010A
TCLP**

Lab Sample ID:	280-25508-1	Analysis Batch:	280-107671	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-107424	Lab File ID:	25A6021412.asc
Dilution:	1.0	Leach Batch:	280-107287	Initial Weight/Volume:	10 mL
Analysis Date:	02/15/2012 0444	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	02/14/2012 1330				
Leach Date:	02/12/2012 1430				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	0.022	U	4.00	3.68	92	80 - 120	
Barium	0.68	B	12.0	12.12	95	80 - 120	
Cadmium	0.0020	U	1.10	1.02	93	80 - 120	
Chromium	7.1		5.20	11.11	78	80 - 120	N
Lead	0.013	U	5.50	5.02	91	80 - 120	
Selenium	0.024	U	3.00	2.74	91	80 - 120	
Silver	0.0040	U	1.05	0.984	94	80 - 120	

Duplicate - Batch: 280-107424**Method: 6010B
Preparation: 3010A
TCLP**

Lab Sample ID:	280-25508-1	Analysis Batch:	280-107671	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-107424	Lab File ID:	25A6021412.asc
Dilution:	1.0	Leach Batch:	280-107287	Initial Weight/Volume:	10 mL
Analysis Date:	02/15/2012 0442	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	02/14/2012 1330				
Leach Date:	02/12/2012 1430				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Arsenic	0.022	U	0.022	NC	20	U
Barium	0.68	B	0.703	4	20	B
Cadmium	0.0020	U	0.0020	NC	20	U
Chromium	7.1		7.27	3	20	
Lead	0.013	U	0.013	NC	20	U
Selenium	0.024	U	0.024	NC	20	U
Silver	0.0040	U	0.0040	NC	20	U

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-25508-1
Sdg Number: J01417**TCLP SPLPE Leachate Blank - Batch: 280-107388****Method: 7470A**
Preparation: 7470A
TCLP

Lab Sample ID:	LB 280-107287/1-B	Analysis Batch:	280-107505	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-107388	Lab File ID:	120213ab2.txt
Dilution:	1.0	Leach Batch:	280-107287	Initial Weight/Volume:	30 mL
Analysis Date:	02/13/2012 2121	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	02/13/2012 1230				
Leach Date:	02/12/2012 1430				

Analyte	Result	Qual	MDL	RL
Mercury	0.000030	U	0.000030	0.0020

Lab Control Sample - Batch: 280-107388**Method: 7470A**
Preparation: 7470A
TCLP

Lab Sample ID:	LCS 280-107287/2-B	Analysis Batch:	280-107505	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-107388	Lab File ID:	120213ab2.txt
Dilution:	1.0	Leach Batch:	280-107287	Initial Weight/Volume:	30 mL
Analysis Date:	02/13/2012 2124	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	02/13/2012 1230				
Leach Date:	02/12/2012 1430				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00524	105	90 - 116	

Matrix Spike - Batch: 280-107388**Method: 7470A**
Preparation: 7470A
TCLP

Lab Sample ID:	280-25508-1	Analysis Batch:	280-107505	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-107388	Lab File ID:	120213ab2.txt
Dilution:	1.0	Leach Batch:	280-107287	Initial Weight/Volume:	30 mL
Analysis Date:	02/13/2012 2131	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	02/13/2012 1230				
Leach Date:	02/12/2012 1430				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.000030	U	0.00500	0.00543	109	90 - 116

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-25508-1

Sdg Number: J01417

Duplicate - Batch: 280-107388**Method: 7470A****Preparation: 7470A****TCLP**

Lab Sample ID: 280-25508-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 02/13/2012 2128
Prep Date: 02/13/2012 1230
Leach Date: 02/12/2012 1430

Analysis Batch: 280-107505
Prep Batch: 280-107388
Leach Batch: 280-107287
Units: mg/L

Instrument ID: MT_033
Lab File ID: 120213ab2.txt
Initial Weight/Volume: 30 mL
Final Weight/Volume: 30 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.000030 U	0.000030	NC	20	U

2. 6X35R, 2/16/12

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-074-365	Page 1 of 1	
Collector Q Stowe		Company Contact Joan Kessner	Telephone No. 509-375-4688	Project Coordinator KESSNER, JH		Price Code <i>8E</i> <i>2A</i>	Data Turnaround <i>21 Days</i> <i>24 Hrs</i>	
Project Designation 100-D/DR Burial Grounds & Remaining Sites - Soil In-Proce		Sampling Location 100-D-30 Excavation @ 35' bgs (133.5 m)			SAF No. RC-074		<i>D 2-6-12</i>	
Ice Chest No. N/A		Field Logbook No. EL-1607-13		COA R00D302000	Method of Shipment Hand Deliver			
Shipped To TestAmerica Incorporated, Richland		Offsite Property No. N/A			Bill of Lading/Air Bill No. N/A			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>None</i>		Preservation	Cool 4C	Cool 4C				
Special Handling and Cool 4 Deg C		Type of Container	G/P	G/P				
		No. of Container(s)	1	1				
		Volume	125mL	125mL				
<i>J01417</i> <i>J2B070467</i> <i>Due 2-8-12</i>		See item (1) in Special Instructions.	Chromium Hex - 7196 - Quick Turn (Hexavalent Chromium)					
SAMPLE ANALYSIS								
Sample No.	Matrix *	Sample Date	Sample Time					
J1N4K2 MQNLR	SOIL	2/7/12	1405	X	X			
J1N4K3 MQNLV	SOIL	2/7/12	1407	X	X			
J1N4K4 MQNLW	SOIL	2/7/12	1410	X	X			
CHAIN OF POSSESSION		Sign/Print Names				SPECIAL INSTRUCTIONS		
Relinquished By/Removed From <i>Quincy Stowe</i>	Date/Time <i>2-7-12</i>	Received By/Stored In <i>JV Fullmer</i>	Date/Time <i>2-7-12</i>	(1) Metals by ICP - 6010 - Quick Turn {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}				
Relinquished By/Removed From <i>JV Fullmer</i>	Date/Time <i>2-7-12</i>	Received By/Stored In <i>A. Freier</i>	Date/Time <i>2-7-12</i>	④ Please analyze for TCLP				
Relinquished By/Removed From <i>A. Freier</i>	Date/Time <i>2-7-12</i>	Received By/Stored In <i>CDR Bingham</i>	Date/Time <i>2/7/12 1625</i>	(ICP + Hg) Metals				
Relinquished By/Removed From <i>CDR Bingham</i>	Date/Time <i>2/7/12 1640</i>	Received By/Stored In <i>J. Box</i>	Date/Time <i>2/7/12 1640</i>	per J. Kessner.				
Relinquished By/Removed From <i>Lucas Valenzano</i>	Date/Time <i>2/9/12 1152</i>	Received By/Stored In <i>J. Box</i>	Date/Time <i>2/9/12 0900</i>	<i>2/19/12</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By	Title <i>7 day TAT</i>				Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time		

Matrix *

S=Soil
SE=Sediment
SO=Solid
SI=Sledge
W=Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Trash
W=Wipe
L=Liquid
V=Vegetation
X=Other

Project 28002142 - Solid

Analytical Due:

Report Due: 2/17/12 (Rush 5 by TAT)

Sample Check-in List

Date/Time Received: 2/10/12 0900 GM Screen Result 11 microR/hr

Client: Washington Closure Hanford SDG #: JOM17 NA [] SAF #: RC-074 NA []

Job Number: 25508 Chain of Custody # RC-074-365

Shipping Container ID: 7932 1201 4296 Air Bill # 7932 1201 4296

1. Custody Seals on shipping container intact? N/A NA [] Yes [] No []
2. Custody Seals dated and signed? NA [] Yes [] No []
3. Chain of Custody record present? NA [] Yes [] No []
4. Cooler Temperature °C: 2.6 NA [] 5. Vermiculite/packing materials is NA [] Wet [] Dry []
6. Number of samples in shipping container: 1 NA [] Yes [] No []
7. Sample holding time exceeded? NA [] Yes [] No []

8. Samples have:
 Tape
 Custody Seals Hazard Lables
 Appropriate Sample Lables

9. Samples are:
 In Good Condition Leaking
 Broken Have Air Bubbles
 (Only for samples requiring no head space.)

10. Sample pH taken? NA [] pH<2 [] pH>2 [] pH>9 [] Amount HNO₃ Added _____

11. Sample Location, Sample Collector Listed? *
 *For documentation only. No corrective action needed.

12. Were any anomalies identified in sample receipt?

Yes [] No []

13. Description of anomalies (include sample numbers): Sample JMK3 and JMK4 listed on COC but not received.

Sample Custodian: Jill Darr

Date: 2/10/12

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

No action necessary; process as is.

Project Manager John A. Fink Date 2/13/12

From: (509) 375-3131
 Shipping Dept.
 TESTAMERICA LABORATORIES
 2800 GEORGE WASHINGTON WAY
 RICHLAND, WA 99354

Origin ID: PSCA



J12101112190225

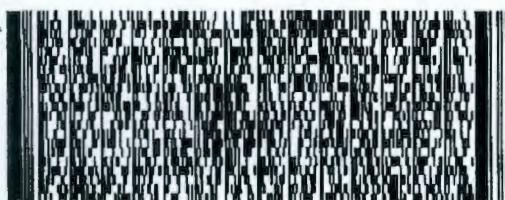
Ship Date: 09FEB12
 ActWgt: 10.0 LB
 CAD: 1033413/NET3250

Delivery Address Bar Code



Ref # WCH
 Invoice #
 PO #
 Dept #

SHIP TO: (303) 736-0100 **BILL SENDER**
SAMPLE RECEIVING DENVER_WCH
TESTAMERICA DENVER (WCH)
4955 YARROW ST

ARVADA, CO 80002

TRK# 7932 1201 4296
 0201

FRI - 10 FEB A1
PRIORITY OVERNIGHT

80002
 CO-US
 DEN

XH WHHA



512G1/BF59/A276

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3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.